

**Diagnosis:**

**A) History**

**i-Personal:**

- 1-Age: <20 yrs → dysfunctional uterine bleeding  
30 yrs → Pregnancy complication (e.g. ectopic, abortion)  
40 yrs → Organic Cause (e.g. Fibroid)
- 2-Marital status: Married → pregnancy complications, Hormonal intake

**ii-Past:** Blood disease, Liver disease

**iii-Obstetric:** history of abortion, Hydatidiform mole

**iv-Menstrual:** Before the abnormality

**v-Present:**

- 1-Exclude extra-genital causes (e.g. bleeding per rectum, hematuria)
- 2-Exclude generalized bleeding tendencies
- 3-Ask about: amount, character, duration, bleeding is cyclic or not
- 4-Other Symptoms: Pregnancy complications, hormonal intake, pain, discharge, GIT/Urinary symptoms

**B) Examination:**

**i-General:** 1-Signs of anemia 2-Manifestations of bleeding tendencies (e.g. Bruising, Petechia)  
3-Manifestation of thyroid dysfunction 4-Manifestation of Cachexia

**ii-Abdominal:** -Pelvi-abdominal mass (e.g. Fibroid, Pregnancy)

**iii-Local:** -Vulva & Vagina → Ulcers, mass, inflammation -Cervix → Erosions, Polyps, ulcers  
-Uterus → Size (enlarged or normal) -Adenxa → any mass

**C) Investigations:**

**1-Transvaginal Ultrasound:** ovarian tumors, uterus (endometrial thickness, any focal lesions)

**2-Endometrial Biopsy:** (Fractional curettage)

- Pre-menstrual → functional state of endometrium
- At the Beginning of bleeding

**3-Endoscopy:** -Endometrial cavity (hysteroscopy) → Polyp, subserous fibroid -Pelvic cavity (laparoscopy)

**4-Laboratory:** -CBC -Platelet count -Clotting time -Prothrombin time  
-Thyroid / Liver function tests -Serum progesterone

**Treatment:**

**A) General:**

- 1-Rest 2-Correction of anemia (even blood transfusion)
- 3-Causal Treatment: -Bleeding Tendency → Clotting factors -Fibroid / Mass → Excision

**B) Medical:**

**i-Non Hormonal:**

- 1-Antifibrinolytic agents: ► **Tranexamic acid** (Cyklokapron / Kapron) → Prevent Plasminogen activation
  - ↓ Blood loss by 50%
  - Contraindicated in Thromboembolic diseases
- 2-Anti Prostaglandins: → ► **Mefenamic acid** → Block COX enzyme, Prevent binding of PG to receptors
  - ↓ Bleeding by 25%
  - ↓ Pain
- 3-Hemostatic agent: ► **Diosmin** (Daflon) → ↓ Capillary fragility, ↑ Platelet aggregation

**ii-Hormonal:**

- 1-Progestogens: ► **Norethisterone** (Cidolut Nor) → Anti-estrogenic effect
  - Dose: 1-2 tab (each 5 mg), from the 5<sup>th</sup> day of menstruation and for 20 days

- 2-Estrogen: **NOT** used except in rare cases like severe bleeding in a virgin (High dose)
- 3-Oral Contraceptive pills (OCPs): ▪ **Combined Type (E/P):** in cases of atrophic endometrium
- 4-Danazol: ▪ **Weak synthetic androgen** ▪200-400 mg daily for 3 months ▪ → Amenorrhea
  - has many side effects so not used till other medications fail
  - Expensive
- 5-GnRH agonist: → Down regulation of the pituitary ▪ Nasal spray / IM ▪ Once / month for 3 – 6 months
  - In case of fibroid women that still want to get pregnant
- 6-Progesterone loaded IUD: ► **Mirena** ▪ ↓Blood Loss by 80%
  - Used in blood diseases, Chronic renal failure, Liver & Kidney Transplant

### **C) Surgical:**

#### **1-Dilatation & Curettage (D&C):**

**Indication:** -Bleeding after the age of 40 yrs -Failed medical ttt -Severe bleeding

**Value:** -Diagnostic (determine type of bleeding, exclude organic causes)

-Therapeutic (Stop bleeding), \*but bleeding will recur in 1-2 months

#### **2-Endometrial Ablation:**

-Destruction of the basal layer of endometrium by Electrocautary or Thermal or Laser

-Indications: in cases that hysterectomy is refused or contraindicated

#### **3-Hysterectomy:**

**Indications:** -Failed all lines of ttt including TWICE D&C

-Associated pathology (e.g. fibroid > 40 yrs, ovarian cyst > 45 yrs)